



Building Maintenance and Operation Template (BM) BM-B Basis of Design (BOD)

[Documentation of the Basis of Design (BOD) is a step required for compliance with 2010 CALGREEN Code, section 5.410.2.1, for newly constructed buildings greater than 10,000 sq. ft. This template is a guide for use by the design team.]

1. HVAC System

1.1. Narrative Description of System

- A. [System type(s), location, control type, efficiency features, outdoor air ventilation strategy, indoor air quality features, noise reduction features, environmental benefits, other special features]
- B. [Describe how system meets any special requirements listed in the Owner's Project Requirements document.]

1.2. Reasons for System Selection

- A. [Reasons that the selected system is a better choice than alternatives. E.g. comfort performance, efficiency, reliability, flexibility, simplicity, cost, owner preferences, site constraints, climate, availability of maintenance, acoustics]

1.3. Load Calculations

- A. Load calculation method/software: _____
- B. Summer outdoor design conditions: ____°F drybulb, ____°F wetbulb
- C. Winter outdoor design conditions: ____°F drybulb
- D. Indoor design conditions: ____°F, ____%RH cooling; ____°F heating
- E. **Internal heat gain assumptions:**

Space	Lighting Load	Plug Load	Occupant Load	Infiltration Load	Other:

F. Calculated cooling loads and system size:

System/ Air Handler ID	Calculated Peak Cooling Load	Selected System Cooling Capacity	Reasons for difference between calculated load and selected system capacity

- G. Other load calculation assumptions:

1.4. Sequence of Operations

- A. [Operating schedules, setpoints, etc. May refer to plans and/or specifications if sequence of operations is included there.]



2. Indoor Lighting System

2.1. Narrative Description of System

- A. Fixture type(s)
- B. Lamp and ballast type
- C. Control type
- D. [Describe how system meets any special requirements listed in the Owner's Project Requirements document.]

2.2. Reasons for System Selection

- A. [Reasons that the selected lighting system is a better choice than alternatives. E.g. visual comfort performance, efficiency, reliability, flexibility, simplicity, cost, owner preferences, color rendering, integration with daylighting, ease of maintenance, etc.]

2.3. Lighting Design Criteria

Space ID	Space Type	Illumination Design Target (footcandles)	Source of Target (e.g. IES Standard, Owner Requirement)	Other Lighting Design Criteria: [e.g. CRI, CCT]

2.4. Lighting Power Design Targets

Space Type	Title 24 Lighting Power Allowance (watts/ft ²)	Lighting Power Design Target (watts/ft ²)

3. Water Heating Systems

3.1. Narrative Description of System

- A. [System type(s), location, control type, efficiency features, environmental benefits, other special features]
- B. [Describe how system meets any special requirements listed in the Owner's Project Requirements document.]

3.2. Reasons for System Selection

- A. [Reasons that the selected water heating system is a better choice than alternatives. E.g. performance, efficiency, reliability, simplicity, space constraints,



cost, owner preferences, ease of maintenance, utility company incentives, etc.]

3.3. Water Heating Load Calculations

- A. [Describe sizing calculation method, assumptions, and results]

4. Renewable Energy Systems

4.1. Narrative Description of System

- A. [System type(s), location, inverter type, control type, performance, efficiency, energy savings, payback period]
B. [Describe how system meets any special requirements listed in the Owner's Project Requirements document.]

4.2. Reasons for System Selection

- A. [Reasons that the selected renewable energy systems are a better choice than alternatives. E.g. performance, efficiency, reliability, flexibility, simplicity, expandability, cost, payback period, utility company incentives, owner preference, space constraints, cost, owner preferences, ease of maintenance, etc.]

4.3. Renewable Energy System Generation Calculations

- A. [Describe sizing calculation method, assumptions, and results]

5. Landscape Irrigation Systems

5.1. Narrative Description of System

- A. [System type(s), location, control type, performance, efficiency, water savings]
B. [Describe how system meets any special requirements listed in the Owner's Project Requirements document.]

5.2. Reasons for System Selection

- A. [Reasons that the selected landscape irrigation systems are a better choice than alternatives. E.g. performance, efficiency, reliability, flexibility, simplicity, expandability, cost, payback period, utility company incentives, owner preference, cost, owner preferences, ease of maintenance, etc.]

5.3. Landscape Irrigation System Calculations

- A. [Describe sizing calculation method, assumptions, and results]

6. Water Reuse Systems

6.1. Narrative Description of System

- A. [System type(s), location, space requirements, equipment requirements, control type, performance, efficiency, potable water savings, payback period]
B. [Describe how system meets any special requirements listed in the Owner's Project Requirements document.]

6.2. Reasons for System Selection

- A. [Reasons that the selected water reuse systems are a better choice than alternatives. E.g. performance, efficiency, reliability, flexibility, simplicity, expandability, cost, payback period, utility company incentives, owner preference, space constraints, cost, owner preferences, ease of maintenance, etc.]

6.3. Water Reuse System Calculations

- A. [Describe sizing calculation method, assumptions, and results]